WE CLAIM:

1. A photolithography mask for optically transferring a pattern formed in said mask onto a substrate, said mask comprising:

a plurality of resolvable features to be printed on said substrate; and

a non-resolvable optical proximity correction feature disposed between two of said plurality of resolvable features, said non-resolvable optical proximity correction feature having a transmission coefficient in the range of greater than 0% to less than 100%.

2. The photolithography mask of claim 1, wherein said non-resolvable optical proximity correction feature has a width dimension which is less than the width of a space separating said two of said plurality of resolvable features.

3. The photolithography mask of claim 2, wherein said non-resolvable optical proximity correction feature is disposed in the center of the space separating said two of said plurality of resolvable features.

4. The photolithography mask of claim 1, further comprising a plurality of said non-resolvable optical proximity correction features, wherein one of said non-resolvable optical proximity correction features is placed between multiple pairs of said resolvable features.

5. The photolithography mask of claim 4, wherein said non-resolvable optical proximity correction features function to minimize the increase in a second order diffraction component of said mask.

6. The photolithography mask of claim 4, wherein said non-resolvable optical proximity correction features function to reduce an isofocal inflection point associated with a given set of said resolvable features.

7. The photolithography mask of claim 1, wherein said mask is illuminated utilizing off-axis illumination.

8. A computer program product for controlling a computer comprising a recording medium readable by the computer, means recorded on the recording medium for directing the computer to generate at least one file corresponding to a photolithography mask for optically transferring a pattern formed in said mask onto a substrate, said mask comprising:

a plurality of resolvable features to be printed on said substrate; and

a non-resolvable optical proximity correction feature disposed between two of said plurality of resolvable features, said non-resolvable optical proximity correction feature having a transmission coefficient in the range of greater than 0% to less than 100%.

9. The computer program product of claim 8, wherein said non-resolvable optical proximity correction feature has a width dimension which is less than the width of a space separating said two of said plurality of resolvable features.

10. The computer program product of claim 8, wherein said non-resolvable optical proximity correction feature is disposed in the center of the space separating said two of said plurality of resolvable features.

11. The computer program product of claim 8, wherein said mask further comprises a plurality of said non-resolvable optical proximity correction features, wherein one of said non-resolvable optical proximity correction features is placed between multiple pairs of said resolvable features.

12. The computer program product of claim 11, wherein said non-resolvable optical proximity correction features function to minimize the increase in a second order diffraction component of said mask

13. The computer program product of claim 11, wherein said non-resolvable optical proximity correction features function to reduce an isofocal inflection point associated with a given set of said resolvable features.

14. The computer program product of claim 8, wherein said mask is illuminated utilizing off-axis illumination.

15. A method of transferring a lithographic pattern from a photography mask onto a substrate by use of a lithographic exposure apparatus, said method comprising the steps of:

forming a plurality of resolvable features to be printed on said substrate; and

forming at least one non-resolvable optical proximity correction feature, said at least one non-resolvable optical proximity correction feature having a transmission coefficient in the range of greater than 0% to less than 100%.

16. The method of claim 15, wherein said non-resolvable optical proximity correction feature has a width dimension which is less than the width of a space separating said two of said plurality of resolvable features.

17. The method of claim 15, wherein said non-resolvable optical proximity correction feature is disposed in the center of the space separating said two of said plurality of resolvable features.

18. The method of claim 15, further comprising the step of forming one of said non-resolvable optical proximity correction features between multiple pairs of said resolvable features.

19. The method of claim 18, wherein said non-resolvable optical proximity correction features function to minimize the increase in a second order diffraction component of said mask.

20. The method of claim 18, wherein said non-resolvable optical proximity correction features function to reduce an isofocal inflection point associated with a given set of said resolvable features.

21. The method of claim 15, wherein said mask is illuminated utilizing off-axis illumination.

22. A device manufacturing method comprising the steps of:

(a) providing a substrate that is at least partially covered by a layer of radiation-sensitive material;

(b) providing a projection beam of radiation using a radiation system;

(c) using a pattern on a mask to endow the projection beam with a pattern in its cross-section;

(d) projecting the patterned beam of radiation onto a target portion of the layer of radiation-sensitive material,

wherein, in step (c), use is made of a mask comprising:

a plurality of resolvable features to be printed on said substrate; and

a non-resolvable optical proximity correction feature disposed between two of said plurality of resolvable features, said non-resolvable optical proximity correction feature having a transmission coefficient in the range of greater than 0% to less than 100%.